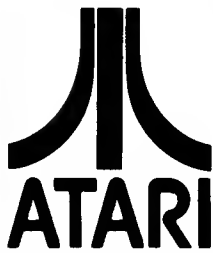


PIN PONG

Operation and Maintenance Manual





JOB Title P.C. BOARD ASSEMBLY
PIN PONG - 60 HZ

Dwg. P/L 001660-01

Parts List Specification

sheet 1 of 2

Drawn Cynthia

Checked

Proj. Eng.

Mech. Eng.

Elec. Eng.

Rev.

G

Rev.	Description	Apprv.	Rev.	Description	Apprv.
C	PROD. REL				
D	REV PER ECN 751,811,812				
E	Rev per ECN 926				
F	Rev per ECN 971				
G	REV PER ECN 1071				

Item	Part. No.	Qty.	Description
1	72062/37-74L00	1	Integrated Circuit, 74L00
2	72000/37-7400	8	" " 7400
3	72001/37-7402	7	" " 7402
4	72002/37-7404	5	" " 7404
5	72027/37-7408	8	" " 7408
6	72003/37-7410	7	" " 7410
7	72061/37-7414	1	" " 7414
8	72004/37-7420	5	" " 7420
9	72006/37-7427	2	" " 7427
10	72007/37-7430	2	" " 7430
11	72064/37-7432	1	" " 7432
12	72008/37-7448	1	" " 7448
13	72010/37-7474	20	" " 7474
14	72059/37-7485	2	" " 7485
15	72012/37-7486	8	" " 7486
16	72013/37-7490	4	" " 7490
17	72014/37-7493	3	" " 7493
18	72015/37-74107	4	" " 74107
19	72016/37-74153	2	" " 74153
20	72060/37-74164	1	" " 74164
21	72035/37-74193	5	" " 74193
22	72024/37-9312	4	" " 9312
23	72036/37-9314	3	" " 9314
24	72017/37-9316	3	" " 9316
25	72031/37-9321	1	" " 9321
26	72025/37-9322	4	" " 9322
27	72026/37-9602	1	" " 9602
28	72057/37-LM323K	1	LM323K
29	72048/37-LM380	1	" " LM380
30	72058/37-MC4024	1	" " MC4024
31	72042/37-MFC6040	1	" " MFC 6040
32	72040/37-CD4016	1	" " CD4016
33	72021/37-NE566	1	" " NE566
34	22103/19-311103	1	Trimpot, 10K
35	22502/19-311502	1	Trimpot, 5K
36	22105/19-311105	1	Trimpot, 1M
37	37000/24-160802	1	Capacitor, Electrolytic, 8,000 uf, 16V

PARTS LIST SPECIFICATION

Dwg. P/L 001660-01

Title PCB ASSY. - PIN PONG - 60 HZ

sheet 2 of 2

Rev. G

Item	Part No.	Qty.	Description
38	35503/24-250501	3	Capacitor, Electrolytic, 500 uf, 25V
39	35254/24-060251	1	" " 250 uf, 6V
40	39100/29-001	2	" Tantalum, 100 uf, 10V
41	35506/24-250100	2	" Electrolytic, 10 uf, 25V
42	35472/24-100050	2	" " 5 uf, 16V
43	35508/24-250010	1	" " 1 uf, 25V
44	34101/27-101104	16	" Ceramic, Disc, .1 uf
45	32221/27-101224	1	" Mylar, .22 uf
46	30332/28-101471	1	" Mica, 470 pf
47	30101/28-101101	1	" " 100 pf
48	30102/28-101221	6	" " 220 pf
49	71001/31-1N4001	6	Diode, 1N 4001
50	31-1N1612	2	Diode, 1N 1612
51	71000/31-1N914	15	Diode, 1N 914
52	71020/32-1N5237	1	Diode, 1N 712 (or 1N 5237), 8.2V Zener
53	70009/34-2N5190	1	Transistor, 2N 5190
54	70000/34-2N3643	3	Transistor, 2N 3643
55	70001/34-2N3544	1	Transistor, 2N 3644
56	19100/19-808W4PO	1	Resistor, 10 Watt, 4 ohm
57	12103/11-0151	1	" 1/2 Watt, 150 ohm
58	11270/19-839C2P7	1	" Carbon, $\pm 5\%$, 1/4 Watt, 2.7 ohm
59	11123/10-5123	1	" " " 12K ohm
60	10101/10-0101	4	" " $\pm 10\%$, " 100 ohm
61	10151/10-0151	1	" " " 150 ohm
62	10221/10-0221	2	" " " 220 ohm
63	10271/10-0271	3	" " " 270 ohm
64	10331/10-0331	7	" " " 330 ohm
65	10102/10-0102	24	" " " 1K ohm
66	10103/10-0103	2	" " " 10K ohm
67	10153/10-0153	2	" " " 15K ohm
68	10181/10-0181	1	" " " 180 ohm
69	10472/10-0472	4	" " " 4.7K ohm
70	10273/10-0273	1	" " " 27K ohm
71	10473/10-0473	1	" " " 47K ohm
72	75103/75-916S	2	Nut, Hex, H6
73	75100/72-1610C	2	Screw, Pan Head, SS, #6-32 x 5/8
74	75101/75-056	4	Washer, Internal Star, #6
75	75102/75-016C	2	Washer, Flat, #6
76	75188/75-1408C	3	Screw, Machine, Pan Hd., #4-40 x 1/2", SS
77	75164/75-914S	3	Nut, Hex, #4-40
78	75194/75-054	5	Washer, Internal Tooth Lock, #4-40
79	75163/75-014S	2	Washer, Flat, #4-40
80	60000/69-001	3	Switch, DFT
81	81001/90-101	1	Crystal
82	83014/78-06001	1	Wakefield Heatsink
83	001925	1	Printed Circuit Board, Revision C
84	79-20102	7	Useco 2006B Terminals
85	79-58017	1	6 Pin Polarized Male P.C. Conn.
86	001992	1	Heatsink, Diode
87	78-16002	A/R	Thermal Conductive Compound
88	57-216	2	Buss Wire, #16AWG, 1 1/4" Long
89	75-050	2	Washer, Internal Tooth Lock, #10
90	75-910S	2	Nut, Hex, #10-32
91	24-100105	1	Capacitor, Electrolytic, 1 uf, 10V
92	10-0222	1	RESISTOR, CARBON, 10%, 1/4W, 2.2K OHM



ASSEMBLY TITLE / PIN PONG ELECTRONICS TRAY P/L 001927

PARTS LIST SPECIFICATION

Page 1 of 1

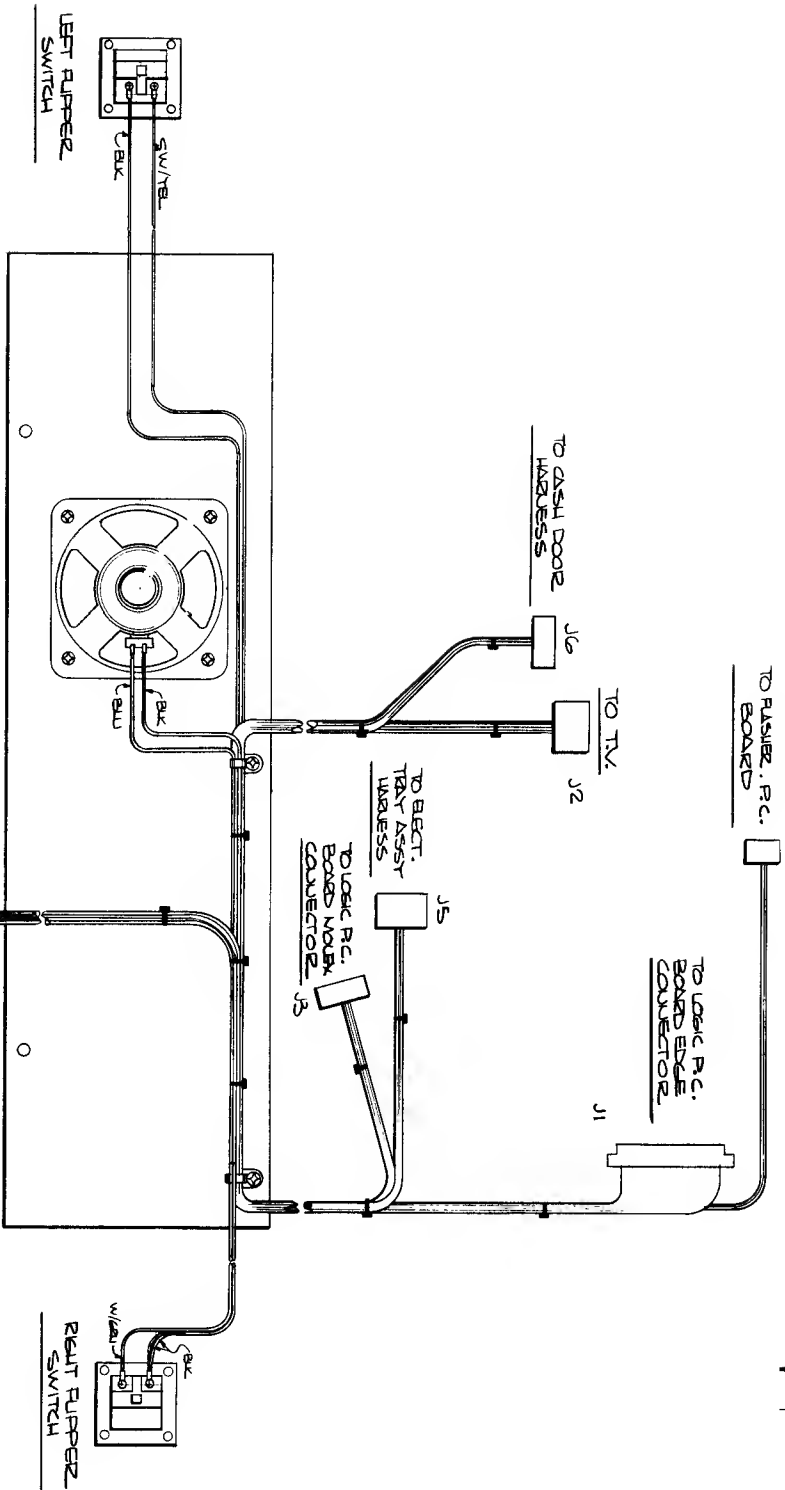
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Proj. Eng.	Elec. Eng.	<i>[Signature]</i>
		REV. B

Rev.	Description	Date	Apprv.	Rev.	Description	Date	Apprv.
A	PROD REL	10/7/74	<i>[Signature]</i>				
B	REV PER ECN 893	10/21/74	<i>[Signature]</i>				

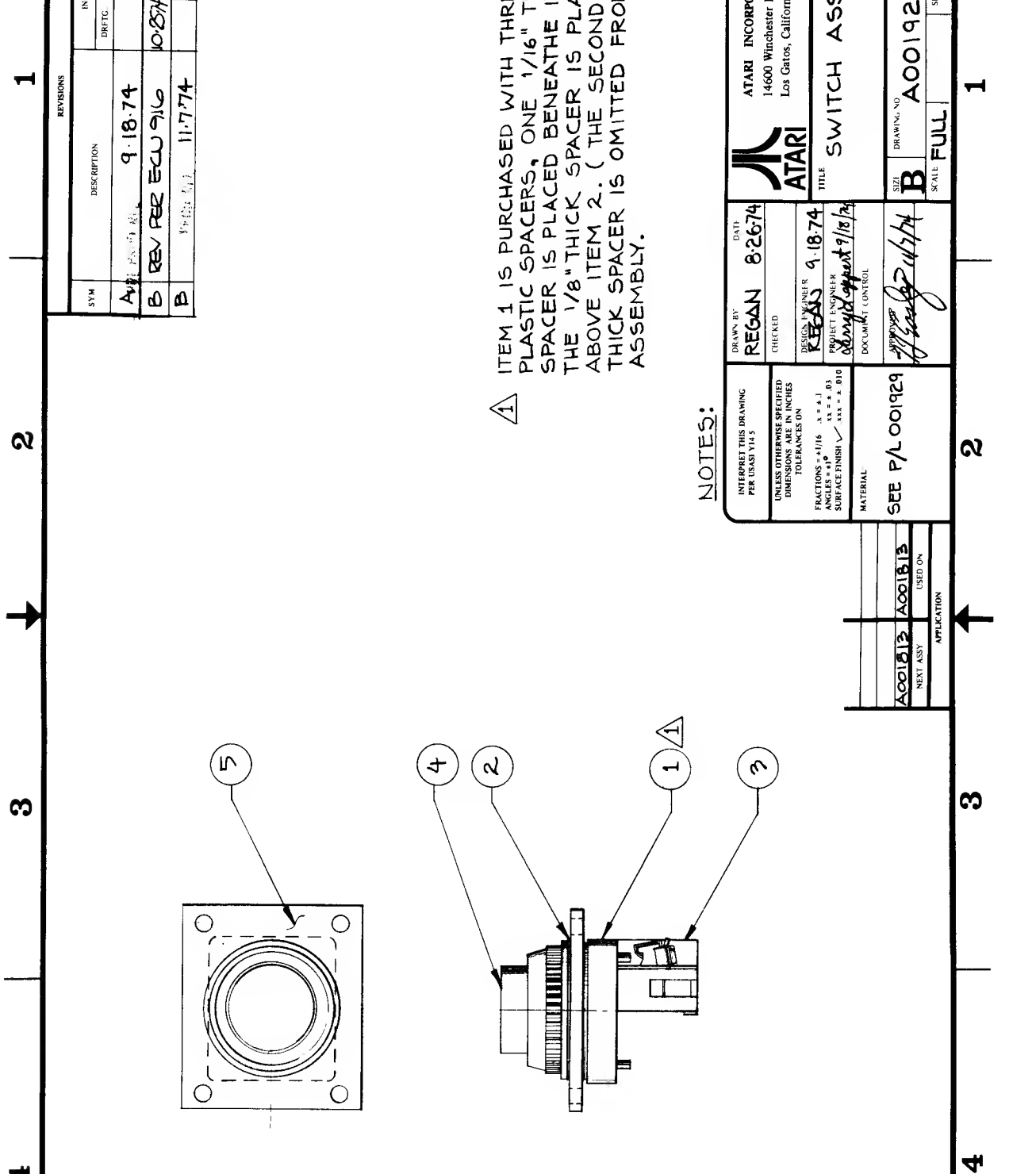
Item	Part Number	Qty.	DESCRIPTION
1	001551	1	Transformer
2	42-70102	1	Transformer
3	90-3001	1	Linefilter
4	79-3201	1	Fuse Holder
5	46-20120	1	Fuse, 2A, Slo-Blo
6	68-001	1	Interlock Switch
7	000268	1	Interlock Switch Bracket
8	72-6608	20	Screw, Sheet Metal, #6, Pan Hd., Phil., 1/2"
9	001998	1	Transformer Cover
10	71-301	1	Staple
11	54-401	1	Line Cord
12	002439	1	Harness
13	47-1001	1	Coin Counter
14	75-2824S	1	Machine Screw, #8 x 1 1/2"
15	75-918S	2	8-32 Nut
16	75-018S	3	Washer, #8
17	A001995	1	Tray, Electronics
18	A001920	1	Harness, Voltage Selection
19*	A001921-01	A/R	Shorting Block, 95V
20*	A001921-02	A/R	Shorting Block, 110V
21*	A001921-03	A/R	Shorting Block, 220V (High Line)
22*	A001921-04	A/R	Shorting Block, 220V (Low Line)
23	75-8808	4	Screw, Wood, Flat Hd., Phil., #8 x 1/2" Lg.
24	78-25001	A/R	Cable Clamp
25	000871	1	Label
26	79-20101	1	Molex Male Pin 02-09-2011
27	79-58019	1	Molex Plug 03-09-2118

*Install Shorting Block per voltage required

REVISIONS				
SYM	DESCRIPTION	INITIALS and DATE		
DRFTG	CHECK	ENGRC		
A	PROD REL	04/74	EC	EC



INTERPRET THIS DRAWING PER USAR 7143		DRAWN BY DC		DATE 0-11-74	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES IN:		CHECKED DC		REGION ENGINEER	
REACTING ±.010 ANGLES ±.010 SURFACE FINISH ✓ SEE 010		PROJECT ENGINEER gary & gary 0/14		DOCUMENT CONTROL	
MATERIAL:		APPROVED 		SIZE D	
TITLE ATARI HARNESS INSTALLATION DRAWING		ATARI INCORPORATED 1400 Winchester Boulevard Los Gatos, California 95030		DRAWING NO. 002446	
		SCALE 1/2		SHEET 1 OF 1	



⚠ ITEM 1 IS PURCHASED WITH THREE PLASTIC SPACERS, ONE 1/16" THICK SPACER IS PLACED BENEATH ITEM 5. THE 1/8" THICK SPACER IS PLACED ABOVE ITEM 2. (THE SECOND 1/16" THICK SPACER IS OMITTED FROM THE ASSEMBLY.)

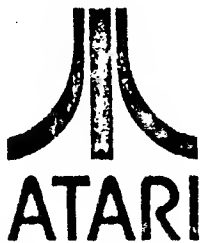
NOTES:

INTERPRET THIS DRAWING PER UNAS 114.5
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES ON
FRACTIONS = +1/16 - .0003
ANGLES = ±10°
SURFACE FINISH = 32
MATERIAL
SEE P/L 001929

DRAWN BY: REGAN 8-26-74
CHECKED: REGAN 9-18-74
DESIGN: REGAN 9-18-74
PROJECT ENGINEER: [Signature]
DOCUMENT CONTROL: [Signature]

ATARI INCORPORATED
14600 Winchester Boulevard
Los Gatos, California 95030
TITLE: SWITCH ASSEMBLY
SIZE: B
DRAWING NO: A001929
REV: B
SCALE: FULL
SHEET: 1 OF 1

REVISIONS			
SYM	DESCRIPTION	INITIALS and DATE	
A	9-18-74	REGAN	EC
B	REV PER ECU 9/16	10-27-74	EC
B	11-7-74	REGAN	1/2



Job Title SWITCH ASSEMBLY
PIN PONG

Dwg. P/L 001929

Part List Specification

sheet 1 of 1

Drawn Cynthia

Checked

Proj. Eng.

Mech. Eng. BEN CHEN

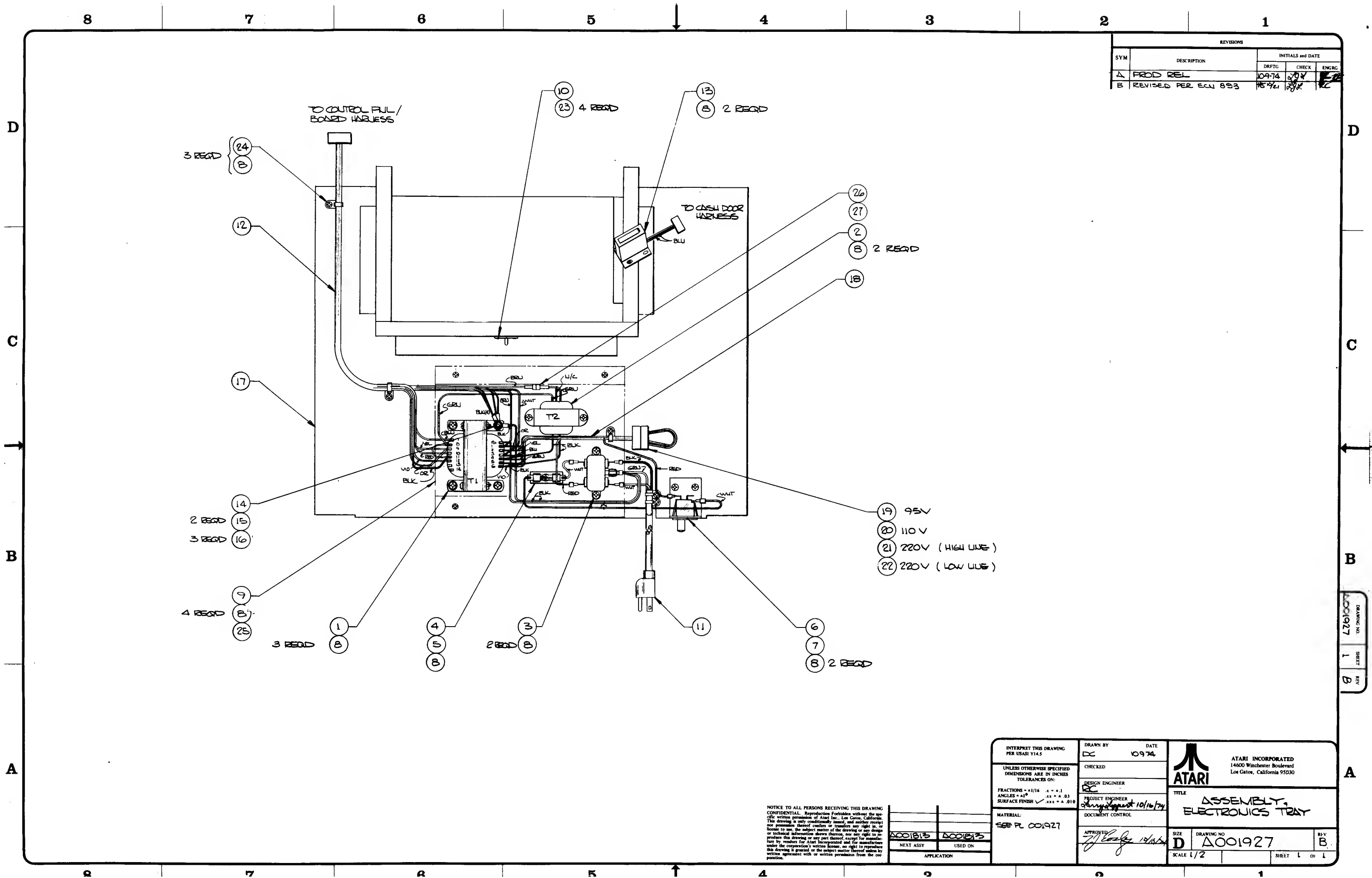
Elec. Eng. Larry Leppert

Rev.

B

Rev.	Description	Apprv.	Rev.	Description	Apprv.
A	PREPROD REL 9/23/74	PC			
B	Rev per ECN 916 10/25/74	PC			
B	PROD REL 11/7/74	PC			


Item	Part. No.	Qty.	Description
1	60013/60-0102	1	Switch, Push-button, Rundel (#R2)
2	60011/60-0301	1	Ring, Anti-Rotation (#SA 19)
3	60012/60-0401	1	Contact Block, SPST, N.O.
4	60014/60-0202	1	Cap, Switch (Yellow), #AY 1
5	001819	1	Bracket, Mounting, Control

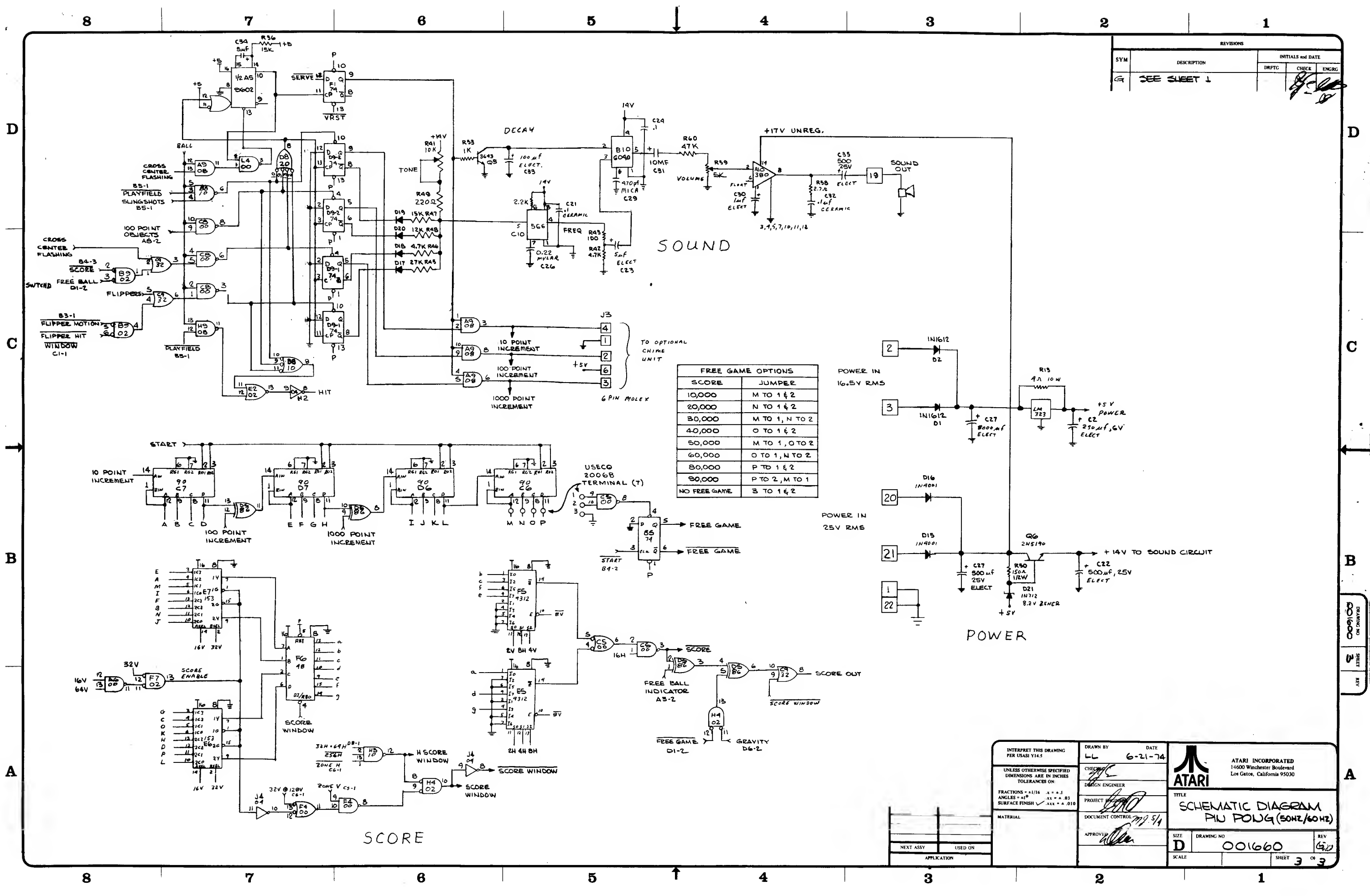


REVISIONS				
SYM	DESCRIPTION	INITIALS and DATE		
		DRFTG	CHECK	ENGRG
A	PROD REL	10/9/74	RC	RC
B	REVISED PER ECN 893	10/16/74	RC	RC

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APPLICATION	USED ON
Δ001B13	Δ001B13

INTERPRET THIS DRAWING PER USASI Y14.5	DRAWN BY DC	DATE 10/9/74	 ATARI INCORPORATED 14600 Winchester Boulevard Los Gatos, California 95030		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON:	CHECKED				
FRACTIONS - 1/16 .X = +.1 ANGLES - 45° .XX = +.03 SURFACE FINISH ✓ .XXX = A .010	DESIGN ENGINEER RC	PROJECT ENGINEER RC			
MATERIAL: SEE PL 001927	DOCUMENT CONTROL				
APPROVED JF/10/16/74			SIZE D	DRAWING NO Δ001927	REV B
SCALE 1/2			SHEET 1 OF 1		



REVISIONS			
SYM	DESCRIPTION	INITIALS and DATE	
1	SEE SHEET 1	DRFTG	CHECK ENGRG

FREE GAME OPTIONS	
SCORE	JUMPER
10,000	M TO 1 & 2
20,000	N TO 1 & 2
30,000	M TO 1, N TO 2
40,000	O TO 1 & 2
50,000	M TO 1, O TO 2
60,000	O TO 1, N TO 2
80,000	P TO 1 & 2
90,000	P TO 2, M TO 1
NO FREE GAME	3 TO 1 & 2

INTERPRET THIS DRAWING PER USASI Y14.5

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON: FRACTIONS = ±1/16 DECIMALS = ±.01 ANGLES = ±1° SURFACE FINISH = XXX = A.010

DRAWN BY: LL

CHECKED BY: [Signature]

DESIGN ENGINEER: [Signature]

PROJECT MANAGER: [Signature]

DOCUMENT CONTROL: [Signature]

APPROVED: [Signature]

DATE: 6-21-74

ATARI INCORPORATED
14600 Winchester Boulevard
Los Gatos, California 95030

TITLE: SCHEMATIC DIAGRAM PII PONG (50HZ/60HZ)

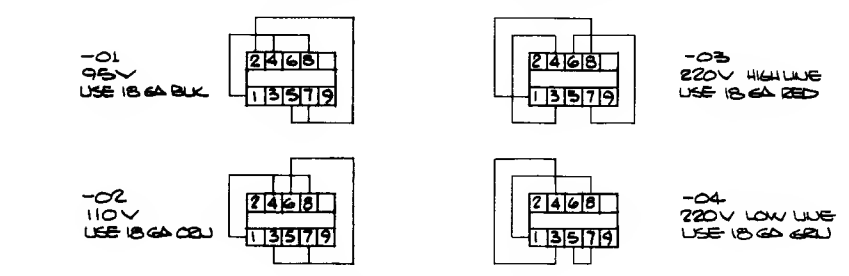
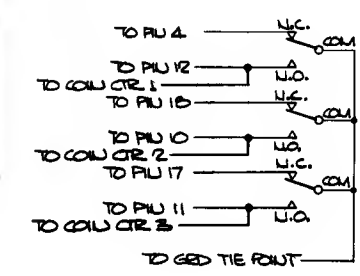
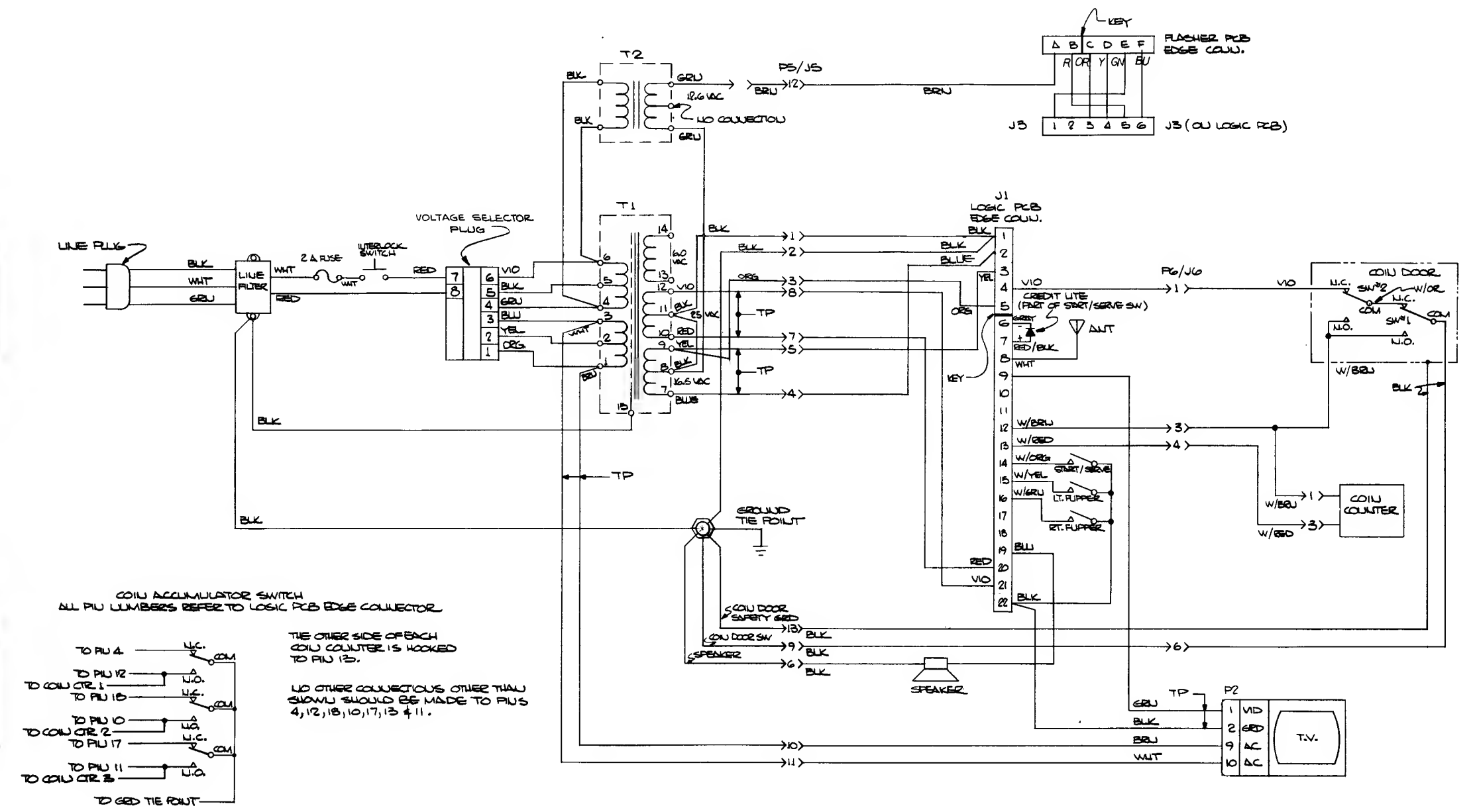
SIZE: D

DRAWING NO: 001660

REV: (4)

SHEET: 3 OF 3

REVISIONS			
SYM	DESCRIPTION	INITIALS and DATE	
		DRFTG	CHECK
B	PROD REL	10/15/74	PC
C	REVISED PER ECN 892	10/21/88	PC
D	REV PER ECN 1425	5/2/15	PC



* SEE DRAWING 0001921 FOR FULL DETAIL

APPLICATION	USED ON
0001813	0001813

INTERPRET THIS DRAWING PER USASI Y14.5		DRAWN BY: COOK DATE: 10/15/74		 ATARI INCORPORATED 14600 Winchester Boulevard Los Gatos, California 95030
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON:		CHECKED:		
FRACTIONS - 1/16 .X = .1		DESIGN ENGINEER:		TITLE WIRING DIAGRAM PIU PONG
ANGLES - 45° .XX = .03		PROJECT ENGINEER:		
SURFACE FINISH .XXX = .010		DOCUMENT CONTROL:		SIZE: D DRAWING NO: 001982 REV: 0 SCALE: SHEET 1 OF 1
MATERIAL:		APPROVED:		